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| 09/943,507      | 08/31/2001  | Shigekazu Ohtomo     | 520.40591X00        | 8177             |

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EXAMINER

CHEN, TIANJIE

ART UNIT PAPER NUMBER

2652

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/943,507

Applicant(s)

OHTOMO ET AL.

Examiner

Tianjie Chen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 16-37 is/are pending in the application.
- 4a) Of the above claim(s) 18,19,22,23,26,27,32,33,36 and 37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16,17,20,21,24,25,28-31,34 and 35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## ***Non-Final Rejection (RCE)***

### ***Election/Restrictions***

1. Applicant's election of Species Ib, Figs. 7 and 9 was made final in previous Office action. Applicant adds new claims 28-37, wherein claims 32 and 36 recite "the wider step portion has curved contours;" and claims 33 and 37 recite "the wider step portion has flare structure contours;" however, these features do not exist in the elected Species Ib, Figs. 7 and 9; instead these features only exist in the non-elected Species 1C, Figs. 8a and 8b. The generic claims are not allowed as shown below. Therefore, claims 32, 33, 36, and 37 are withdrawn from consideration.

### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/22/2004 has been entered. Claims 16-37 are pending, among them, claims 18, 19, 22, 23, 26, 27, 32, 33, 36, and 37 are withdrawn from consideration.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the

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international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 16, 17, 20, 21, 24, 25, 28, 29, 30, 31, 34, and 35 are rejected under 35 U.S.C. 102(e) as being anticipated by Sasaki (US 6,317,289).

Claim 16, Sasaki shows a thin film head in Figs. 24 and 25 having a reading part and a recording part 26 (Column 11, line 60) including: an upper magnetic pole; and Fig. 25 shows a lower magnetic pole having a lower magnetic main layer, a lower magnetic pole front end portion on the lower magnetic main layer, and a projection step portion on the lower magnetic pole front end portion; wherein the projection step portion has a wider step portion at a predetermined depth from an air bearing surface which is wider than a width of the projection step portion at the air bearing surface, the wider step portion being wider than a width in a track direction of the upper magnetic pole at the predetermined depth from the air bearing surface.

Claim 17, Sasaki shows that the wider step portion has rectangular contours.

Claim 20, Sasaki shows a thin film head having a reading pad and a recording part including: an upper magnetic pole; and a lower magnetic pole having a lower magnetic main layer, a lower magnetic pole front end portion on the lower magnetic main layer, and a projection step portion on the lower magnetic pole front end portion; wherein the projection step portion has a pair of wider step areas at a predetermined depth from an air bearing surface which are wider than a width of the projection step portion at the air bearing surface, and a width in a track width direction of the projection step portion at the predetermined depth from the air bearing surface is wider than a width in the track width direction of the upper magnetic pole at the predetermined depth from the air bearing surface.

Claim 21, Sasaki shows that each of the wider step areas has rectangular contours.

Claim 24, Sasaki shows a thin film head having a reading part and a recording part including: an upper magnetic pole; and a lower magnetic pole having a lower magnetic main layer, a lower magnetic pole front end portion on the lower magnetic main layer, and a projection step portion on the lower magnetic pole front end portion; wherein a width in a track width direction of the projection step portion at an air bearing surface is substantially equal to a width in the track width direction of the upper magnetic pole at the air bearing surface (Fig. 25); and wherein a width in the track width direction of the projection step portion at a predetermined depth from the air bearing surface is wider than a width in the track width direction of the upper magnetic pole at the predetermined depth from the air bearing surface.

Claim 25, Sasaki shows the projection step portion at the predetermined depth from the air bearing surface has rectangular contours.

Claims 28 and 29, Sasaki shows in Figs. 24A and 25 that a distance from the air bearing surface to an back edge of the upper magnetic pole 32 at a predetermined track direction shift position is longer than a distance from the air bearing surface to an edge of the wider step portion at the predetermined track direction shift position.

Claim 30, Sasaki shows a thin film head having a reading part and a recording pad including: an upper magnetic pole; and a lower magnetic pole having a lower magnetic main layer, a lower magnetic pole front end portion on the lower magnetic main layer, and a projection step portion on the lower magnetic pole front end portion; wherein the projection step portion has a wider step portion at a predetermined depth from an air bearing surface which is wider than a width of the projection step portion

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at the air bearing surface; and wherein a distance from the air bearing surface to an edge of the upper magnetic pole at a predetermined track direction shift position is longer than a distance from the air bearing surface to an edge of the wider step portion at the predetermined track direction shift position.

Claim 31, Sasaki shows that the wider step portion has rectangular contours.

Claim 34, Sasaki shows a thin film head having a reading pad and a recording part including: an upper magnetic pole; and a lower magnetic pole having a lower magnetic main layer, a lower magnetic pole front end portion on the lower magnetic main layer, and a projection step portion on the lower magnetic pole front end portion; wherein the projection step portion has a pair of wider step areas at a predetermined depth from an air bearing surface which are wider than a width of the projection step portion at the air bearing surface; and wherein a distance from the air bearing surface to an edge of the upper magnetic pole at a predetermined track direction shift position is longer than a distance from the air bearing surface to an edge of the wider step areas at the predetermined track direction shift position.

Claim 35, Sasaki shows each of the wider step areas has rectangular contours.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tianjie Chen whose telephone number is (703) 305-7499. The examiner can normally be reached on 8:00-4:30, Mon-Fri.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
TIANJIE CHEN  
PRIMARY EXAMINER